What is claimed is:

1. A contact for a semiconductor device, comprising:

an intermediate conductive layer in electrical contact with a structure of the semiconductor device;

an insulator component disposed adjacent said intermediate conductive layer; and

an electrically conductive contact layer adjacent said insulator component.

2. The contact of claim 1, wherein said insulator component is sandwiched between said intermediate conductive layer and said contact layer.

3. The contact of claim 1, wherein said intermediate conductive layer and said contact layer substantially envelop said insulator component.

4. The contact of claim 1, wherein said insulator component comprises an insulator material selected from the group comprising undoped silicon dioxide, doped silicon dioxide, silicon nitride, thermoset polymers, and thermoplastic polymers.

5. The contact of claim 1, wherein said intermediate conductive layer comprises an electrically conductive material.

6. The contact of claim 1, wherein said intermediate conductive layer has a thickness of about 200 angstroms or less.

7. The contact of claim 1, wherein said ~~base~~ intermediate conductive layer comprises a material having a melting temperature that is greater than a temperature required to switch a phase change component in electrical communication with the contact between a plurality of states.

8. The contact of claim 1, wherein said intermediate conductive layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

9. The contact of claim 1, wherein said contact layer has a thickness of about 200 angstroms or less.

10. The contact of claim 1, wherein said contact layer comprises a material having a melting temperature that is greater than a temperature required to switch a phase change component in electrical communication with the contact between a plurality of states.

11. The contact of claim 1, wherein said contact layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

12. A contact for a memory element of a semiconductor device that includes a phase change component, the contact comprising:

an insulator component comprising a thermally and electrically insulative material;

an intermediate conductive layer adjacent said insulator component and in electrical and thermal communication with the phase change component; and

a contact layer adjacent said insulator component and in electrical contact with said intermediate conductive layer, said contact layer and said intermediate conductive layer substantially enveloping said insulator component.

13. The contact of claim 12, wherein said thermally and electrically insulative material is selected from the group comprising undoped silicon dioxide, doped silicon dioxide, silicon nitride, thermoset resins, and thermoplastic polymers.

14. The contact of claim 12, wherein said intermediate conductive layer comprises an electrically conductive material.

15. The contact of claim 12, wherein said intermediate conductive layer has a thickness of about 200 angstroms or less.

16. The contact of claim 12, wherein said intermediate conductive layer comprises a material having a melting temperature that is greater than a temperature that is required to switch a phase change material of the phase change component from a first state to a second state.

17. The contact of claim 12, wherein said intermediate conductive layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

18. The contact of claim 12, wherein said contact layer has a thickness of about 200 angstroms or less.

19. The contact of claim 12, wherein said contact layer comprises a material having a melting temperature that is greater than a temperature that is required to switch a phase change material of the phase change component from a first state to a second state.

20. The contact of claim 12, wherein said contact layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

21. A process for fabricating a contact on a semiconductor device, comprising:

forming a first layer of conductive material on a surface of the semiconductor device and in electrical and thermal communication with a structure thereof;

depositing a dielectric layer on said first layer;

patterning said dielectric layer to define an insulator component;

forming a second layer of conductive material substantially over an exposed area of said insulator component; and

patterning said first layer and said second layer.

22. The process of claim 21, wherein said forming a first layer comprises forming a material layer having a thickness of about 200 angstroms or less.

23. The process of claim 21, wherein said forming a first layer comprises depositing a conductive material.

24. The process of claim 23, wherein said depositing comprises chemical vapor deposition.

25. The process of claim 23, wherein said depositing comprises physical vapor deposition.

26. The process of claim 21, wherein said patterning said dielectric layer comprises etching and employs said first layer as an etch stop.

27. The process of claim 21, wherein said forming a second layer comprises forming a material layer having a thickness of about 200 angstroms or less.

28. The process of claim 21, wherein said forming a second layer comprises depositing a conductive material.

29. The process of claim 28, wherein said depositing comprises chemical vapor deposition.

30. The process of claim 28, wherein said depositing comprises physical vapor deposition.

31. The process of claim 21, wherein said forming a first layer comprises disposing a conductive material in electrical and thermal communication with a phase change component of said structure.

32. A contact for a semiconductor device including a contact layer and an intermediate conductive layer which partially contact one another and substantially envelop an insulator component, fabricated by the process comprising:

forming the intermediate conductive layer on a surface of the semiconductor device and in electrical thermal communication with an active device region of the semiconductor device;

depositing a dielectric layer on the intermediate conductive layer;

patterning said dielectric layer to define the insulator component;

forming the contact layer substantially over an exposed area of the insulator component and in electrical communication with the intermediate conductive layer;

patterning the intermediate conductive layer; and

patterning the contact layer.

33. The ~~process~~ contact of claim 32, wherein said forming the intermediate conductive layer comprises disposing a conductive material in electrical and thermal communication with a phase change component of said active device region.

34. The contact of claim 32, wherein said forming the intermediate conductive layer comprises forming a thermally conductive material layer having a thickness of about 200 angstroms or less.

35. The contact of claim 32, wherein said forming the intermediate conductive layer comprises depositing a thermally conductive material.

36. The contact of claim 32, wherein said patterning said dielectric layer comprises etching and employs the intermediate conductive layer as an etch stop.

37. The contact of claim 32, wherein said forming the contact layer comprises forming an electrically conductive material layer having a thickness of about 200 angstroms or less.

38. The ~~process~~ Contact of claim 32, wherein said forming the contact layer comprises depositing an electrically conductive material.

39. An electrically erasable programmable memory device, comprising:

a memory element including an electrode adjacent a memory cell, at least one of said ~~first~~ electrode and said memory cell comprising a phase change material; and

a contact including an intermediate conductive layer in electrical and thermal communication with said phase change material, an insulator component adjacent said intermediate conductive layer, and a contact layer adjacent said insulator component and in electrical communication with said intermediate conductive layer.

40. The electrically erasable programmable ~~read-only~~ memory device of claim 39, wherein said intermediate conductive layer contacts said electrode.

41. The programmable ~~read-only~~ electrically erasable memory device of claim 39, wherein said contact layer and said intermediate conductive layer substantially envelop said insulator component.

42. The programmable ~~read-only~~ electrically erasable memory device of claim 39, wherein said insulator component is sandwiched between said contact layer and said intermediate conductive layer.

43. The programmable ~~read-only~~ electrically erasable memory device of claim 39, wherein said contact layer has a thickness of about 200 angstroms or less.

44. The programmable ~~read-only~~ electrically erasable memory device of claim 39, wherein said intermediate conductive layer has a thickness of about 200 angstroms or less.

45. A semiconductor device including at least one contact, the at least one contact comprising:

an intermediate conductive layer in electrical and thermal communication with a phase change component of a structure of the semiconductor device;

an insulator component disposed adjacent said intermediate conductive layer; and

a contact layer adjacent said insulator component and in electrical communication with said intermediate conductive layer.

46. The semiconductor device of claim 45, wherein said insulator component is sandwiched between said intermediate conductive layer and said contact layer.

47. The semiconductor device of claim 44, wherein said intermediate conductive layer and said contact layer substantially envelop said insulator component.

48. The semiconductor device of claim 45, wherein said insulator component comprises a thermally insulative material.

49. The semiconductor device of claim 45, wherein said intermediate conductive layer comprises an electrically conductive material.

50. The semiconductor device of claim 45, wherein said intermediate conductive layer has a thickness of about 200 angstroms or less.

51. The semiconductor device of claim 45, wherein said intermediate conductive layer comprises a material having a melting temperature that is greater than a temperature that is required to switch a phase change material of a contacted structure between a plurality of states.

52. The semiconductor device of claim 45, wherein said intermediate conductive layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

53. The semiconductor device of claim 45, wherein said contact layer has a thickness of about 200 angstroms or less.

54. The semiconductor device of claim 45, wherein said contact layer comprises a material having a melting temperature that is greater than a temperature that is required to switch a phase change material of a contacted structure between a plurality of states.

55. The semiconductor device of claim 45, wherein said contact layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

56. An enhanced electrically erasable programmable element including a contact comprising:

an intermediate ~~conductible~~ conductive layer in electrical contact with a structure of the semiconductor device;

an insulator component disposed adjacent said intermediate conductive layer; and

an electrically conductive contact layer adjacent said insulator component.

57. The enhanced electrically erasable programmable element of claim 56, wherein said insulator component is sandwiched between said intermediate conductive layer and said contact layer.

58. The enhanced electrically erasable programmable element of claim 56, wherein said intermediate conductive layer and said contact layer substantially envelop said insulator component.

59. The enhanced electrically erasable programmable element of claim 56, wherein said insulator component comprises a thermally insulative material.

60. The enhanced electrically erasable programmable element of claim 56, wherein said insulator component comprises thermally insulative material selected from the group comprising undoped silicon dioxide, doped silicon dioxide, silicon nitride, thermoset resins, and thermoplastic polymers.

61. The enhanced electrically erasable programmable element of claim 56, wherein said intermediate conductive layer comprises an electrically conductive material.

62. The enhanced electrically erasable programmable element of claim 56, wherein said intermediate conductive layer has a thickness of about 200 angstroms or less.

63. The enhanced electrically erasable programmable element of claim 56, wherein said intermediate conductive layer comprises a material having a melting temperature that is greater than a temperature that is required to switch a phase change material of a contacted structure between a plurality of electrical conductivity states.

64. The enhanced electrically erasable programmable element of claim 56, wherein said intermediate conductive layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.

65. The enhanced electrically erasable programmable element of claim 56, wherein said contact layer has a thickness of about 200 angstroms or less.

66. The enhanced electrically erasable programmable element of claim 56, wherein said contact layer comprises a material having a melting temperature that is greater than a temperature that is required to switch a phase change material of a contacted structure between a plurality of states.

67. The enhanced electrically erasable programmable element of claim 56, wherein said contact layer comprises a material selected from the group comprising refractory metals, refractory metal nitrides, and aluminum.